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Mini Review

Therapeutic angiogenesis in patients with chronic arterial insufficiency stage IIB. Enrique Cabrera Hospital, 2024

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Abstract

The work presented by Dr. Edel Iglesias and collaborators addresses the effectiveness of therapeutic angiogenesis through the use of granulocyte colony growth factor (G-CSF) in patients with chronic arterial insufficiency stage IIb, a condition that severely limits the quality of life and mobility of those who suffer from it. The study was conducted at the Enrique Cabrera Hospital during 2023 and used a quasi-experimental before-and-after design, with a sample of 34 patients who did not respond to conventional treatment.

Keywords: therapeutic angiogenesis; granulocyte colony growth factor (G-CSF)

Summary of content

The work presented by Dr. Edel Iglesias and collaborators addresses the effectiveness of therapeutic angiogenesis through the use of granulocyte colony growth factor (G-CSF) in patients with chronic arterial insufficiency stage IIb, a condition that severely limits the quality of life and mobility of those who suffer from it. The study was conducted at the Enrique Cabrera Hospital during 2023 and used a quasi-experimental before-and-after design, with a sample of 34 patients who did not respond to conventional treatment.

Contributions and relevance

The research highlights the importance of regenerative medicine as a therapeutic alternative for patients who are not candidates for surgical revascularization. The use of G-CSF to mobilize hematopoietic stem cells represents an innovative and less invasive approach that can be applied even in resource-limited settings. The results show significant improvements in the ankle-brachial index and claudication distance, suggesting significant functional recovery for patients. Furthermore, the study identifies predominant risk factors such as smoking and hypertension, providing valuable information for the prevention and comprehensive management of the disease.

Critical analysis

The main contribution of this work lies in the application of an accessible and less invasive regenerative therapy, adapted to the conditions of the Cuban healthcare system. The use of G-CSF to mobilize stem cells represents an innovative strategy, especially valuable in contexts where resources for more complex procedures are limited.

Strengths

- The study addresses a problem of high prevalence and clinical relevance in the older adult population.
- It proposes a viable therapeutic alternative that is adaptable to different hospital settings.
- It presents clear quantitative results that demonstrate the clinical improvement of treated patients.

Limitations

- The sample size is small, which limits the generalizability of the results.
- The quasi-experimental design does not allow definitive causality to be established, although it does suggest a positive association between the intervention and the observed results.
- No adverse effects or long-term follow-up were reported, which are relevant aspects in regenerative therapies.

Compared with other studies, this study aligns with the international trend of exploring cell therapies for vascular diseases, but it stands out for its practical approach and adaptability to resource-limited healthcare systems.

Conclusion

This work constitutes a significant contribution to the field of angiology and regenerative medicine in Cuba, demonstrating that

therapeutic angiogenesis with G-CSF can improve vascular function and quality of life in patients with stage IIb chronic arterial insufficiency. The findings support the need for continued research and expanding access to innovative therapies in the Cuban healthcare system.

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